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basic imagery interpretation report

## Pingba (Ping-pa) Propulsion System Research and Development Center (S)

STRATEGIC WEAPONS INDUSTRIAL FACILITIES

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| INSTALLATION OR ACTIVITY NAME                                      | COUNTRY |
| Pingba (Ping-pa) Propulsion System Research and Development Center | CH      |

|                 |                        |          |        |             |          |
|-----------------|------------------------|----------|--------|-------------|----------|
| UTM COORDINATES | GEOGRAPHIC COORDINATES | CATEGORY | BE NO. | COMIREX NO. | NIEB NO. |
| NA              | 26-22-09N 106-15-42E   |          |        |             |          |

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AAP REFERENCE

SAC. USATC, Series 200, Sheet 0496-15, scale 1:200,000

|                     |                             |
|---------------------|-----------------------------|
| LATEST IMAGERY USED | NEGATION DATE (if required) |
|                     | NA                          |

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**ABSTRACT**

1. (TSR) This report discusses construction and general activities observed at Pingba (Ping-pa) Propulsion System Research and Development (R&D) Center from [REDACTED] [REDACTED] It updates NPIC report [REDACTED] dated September 1974, which substantially satisfies the basic reporting requirements for this target.

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3. (TSR) The most significant development during this reporting period has been the expansion of engineering and shop facilities in the engineering/fabrication area through the addition of 7,803 square meters of work space. As of [REDACTED] Pingba Propulsion System R&D Center contained a total of 116,336 square meters of floorspace.

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4. (S) This report contains four annotated photographs and a table of construction details.

**INTRODUCTION**

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6. (TSR) The Pingba center is atypical in its physical layout. It differs from the large-scale Chinese aircraft engine production plants at which shop buildings and engine test facilities are collocated. At Pingba, the engine test facilities are dispersed among a series of interconnecting valleys with one central engineering/fabrication area (Figure 1).

**BASIC DESCRIPTION**

7. (TSR) Pingba Propulsion System R&D Center consists of a sea level static aircraft engine test cell area (test area 1), a flight altitude simulation aircraft engine test cell area (test area 2), and a central engineering/fabrication area which supports both aircraft engine design/development and engine test activities (Figure 1). As of [REDACTED] the total floorspace of Pingba Propulsion System R&D Center was approximately 116,336 square meters.

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**Engineering/Fabrication Area**

8. (TSR) The most significant development occurring at the center between April 1974 and June 1979 has been the expansion of facilities in the engineering/fabrication area (Figure 2). Two additional major engineering/shop buildings were completed during this period. The largest building (item 3) consists of a five-bay shop section and a three-story engineering section. The other building includes a two-story engineering section to which two single-bay and one double-bay shop sections are attached (item 4). A small shop/support building (item 2), which was under construction in October 1973,<sup>2</sup> has also been completed. The addition of these buildings increased the amount of floorspace available for research and fabrication by 7,803 square meters.

9. (TSR) This expansion, which was probably directed by decisions of the Third MMI, is evidence of the high level of concern within the Third MMI with the need for the development of indigenous concepts for high-performance aircraft engines.

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10. (TSR) Other construction in the engineering/fabrication area included the enlargement of the motor vehicle storage facility. Several small sheds were razed and replaced by an L-shaped storage building (item 5).

### Sea Level Static Aircraft Engine Test Cell Area

11. (TSR) There has been no major construction activity at or additions made to the sea level aircraft engine test facilities during the reporting period. Arnold Engineering Development Center (AEDC) engineers have estimated that the five sea level static engine test cells at Pingba are designed for a maximum engine airflow of 93 kilograms/second (kg/s) and a maximum engine thrust of 87 kilonewtons (kN) for turbojet engines with afterburner.<sup>1</sup> For engines without afterburner, the maximum engine airflow is estimated at 102.5 kg/s and the maximum engine thrust at 70 kN.

### Flight Altitude Simulation Aircraft Engine Test Cell Area

12. (TSR) Apparently some internal difficulties or technical delays have been experienced in the completion of the altitude simulation engine test cell building. Although the other components of the test cell facility have been in place since October 1973,<sup>2</sup> the augmentor sections of the diffuser system have not been installed (Figure 3). A separation between the circular efflux sections of the test cells and the exhaust section can be seen on imagery of [REDACTED]. On imagery of [REDACTED] a light shed-type roof was observed extending over the entire rear section of the test cell area, covering a portion of the exhaust section (Figure 4). It is possible that preparation was underway for installation of augmentor sections. In its present state, the altitude simulation test facility would be of limited or no value for its intended use. However, on the basis of the composition and size of the test cell building, it is estimated that the altitude simulation engine test facility, when complete, could accommodate the testing of engines with about the same thrust as those being tested in the sea level engine test cells (87 kN with afterburner).<sup>1</sup>

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13. (TSR) Since late 1976, four horizontal probable fuel tanks have been observed on the ground near the altitude simulation test cell building (Figure 3). Two of the tanks are [REDACTED] long and [REDACTED] in diameter. Another is [REDACTED] long and [REDACTED] in diameter, and the smallest tank is [REDACTED] long and [REDACTED] in diameter. These tanks have remained in the same relative positions with no indication of where they will finally be positioned at the facility.

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### Testing Activity

14. (TSR) General activities at the sea level engine test cell buildings indicate that aircraft engine testing is being accomplished. Occasionally, several possible engine or engine component shipping containers, [REDACTED] have been observed near the test cell facilities. However, because of the design and development function of the Pingba center, the number of aircraft engine shipping containers observed there has understandably been light. The relative proximity of the engineering/fabrication area to the test locations would probably allow engines and components that are to be tested to be transported directly to the test locations without the use of shipping containers.

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## REFERENCES

## IMAGERY

(TSR) All available, applicable KEYHOLE imagery acquired from [REDACTED]  
[REDACTED] was used in preparation of this report.

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## MAPS OR CHARTS

SAC. US. Air Target Chart, Series 200, Sheet 0496-15, scale 1:200,000 (UNCLASSIFIED)

## DOCUMENTS

1. DIA. [REDACTED] DST-1830S-060-76-SAO, *PRC Aerospace Development Supporting Resources (U)*, 23 Aug 76, pp 1 & 15 (TOP SECRET [REDACTED])
2. NPIC. [REDACTED] RCA-09/0013/75, *Ping-pa Propulsion System Research and Development Center*, Sep 74 (TOP SECRET [REDACTED])

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## REQUIREMENT

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Project 290008DJ

(S) Comments and queries regarding this report are welcome. They may be directed to [REDACTED] Asian Forces Division, Imagery Exploitation Group, NPIC, [REDACTED]

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